

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 2003CH011	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/IB2004/003959	International filing date (day/month/year) 02/12/2004	(Earliest) Priority Date (day/month/year) 10/12/2003	
Applicant CLARIANT INTERNATIONAL LTD			

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/003959

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C09B29/085 C09B29/095 C09B29/44 C09B29/08 C09D11/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C09B C09D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	GB 909 843 A (ICI LTD) 7 November 1962 (1962-11-07) example 40 & US 3 097 198 A 9 July 1963 (1963-07-09)	1, 4, 5, 7, 8
A	WO 95/20014 A (ZENECA LTD ; HALL NIGEL (GB)) 27 July 1995 (1995-07-27) example 64	1, 4, 5, 7, 8

☐ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

& document member of the same patent family

Date of the actual completion of the international search

2 February 2005

Date of mailing of the international search report

10/02/2005

Name and mailing address of the ISA

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Authorized officer

Ketterer, M

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/003959

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
GB 909843	A	07-11-1962	CH	405538 A	15-01-1966
			CH	418494 A	15-08-1966
			FR	1247768 A	02-12-1960
<hr/>					
US 3097198	A	09-07-1963	NONE		
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WO 9520014	A	27-07-1995	AU	1323295 A	08-08-1995
			CA	2180448 A1	27-07-1995
			DE	69427543 D1	26-07-2001
			DE	69427543 T2	20-06-2002
			EP	0740690 A1	06-11-1996
			WO	9520014 A1	27-07-1995
			JP	9507693 T	05-08-1997
			US	5739299 A	14-04-1998
		ZA	9500311 A	28-11-1995	

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2004/003959

International filing date (day/month/year)
02.12.2004

Priority date (day/month/year)
10.12.2003

International Patent Classification (IPC) or both national classification and IPC
C09B29/085, C09B29/095, C09B29/44, C09B29/08, C09D11/00

Applicant
CLARIANT INTERNATIONAL LTD

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IB2004/003959

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IB2004/003959

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-8
	No: Claims	
Inventive step (IS)	Yes: Claims	1-8
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-8
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

V. Reference is made to the following documents:

D1: WO -A- 2004/035690

D2: GB -A- 0 909 843

D3: WO -A- 95/20014

V.1. The current application seems to fulfill the requirements with regard to novelty, inventivity and industrial applicability as set out in Article 33(1) PCT.

V.1.1. The problem underlying the current application can be seen (vis à vis D2/D3) as 'providing new alternative dispersive dyes to colour or print hydrophobic materials like textiles (polyester, cellulose acetat) resp. for mass colouration of polymers as well as for the ink jet printing technique resp. hot-melt process'.

V.1.2. Regarding formula (1) of the current application, D2 discloses a dyestuff bearing a methyl group in the position of R5 (see example 40). It is used to colour cellulose acetat. In col. 2, page 1 of D2, a list of preferred chemical groups is given for the substructure X of the molecule, thereby methyl carbonyl is mentioned as the only carbonyl linked group. Proposed is also phenyl, but not phenyl carbonyl. C-pentanone resp. c-hexanone rings, which are defined for R5 in the application as well, are not mentioned in D2, either. The dyestuffs of D2 solve the same technical problem as mentioned above. A skilled person would under certain circumstances choose methyl carbonyl in the position of X, but not phenyl carbonyl. Furthermore, carbonyl is only an optional feature in D2 and therefore not critical as in the current application. Current claims 1-8 therefore seem not to be obvious from D2.

V.1.3. D3 describes the preparation of a dyestuff also bearing a methyl group in the position of R5 (see example 64 as well as the table on page 18) and which is also used to colour cellulose acetat. The dyestuffs of D3 solve the same technical problem as the one of the current application. No hint is given in D3 for a phenyl carbonyl group in the ester function. Claims 1-8 therefore seem to be not obvious from D3. As D2 and D3 miss this critical feature, also a combination D2/D3 would not lead a skilled person to the dyestuffs as defined in current claim 1.

VII. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1-D3 is not mentioned in the description, nor are these documents identified therein.